

MEDIA TAGGING

TECHNICAL FIELD

[0001] The present application relates generally to media tagging.

BACKGROUND

[0002] Current electronic user devices, such as smart phones and computers, carry a plurality of functionalities, for example various programs for different needs and different modules for photographing, positioning, sensing, communication and entertainment. As electronic devices develop they are used more and more for recording users' lives as image, audio, video, 3D video or any other media that can be captured by electronic devices. Recorded media may be stored, for example, in online content warehouses, from where searching and browsing of it should be somehow possible afterwards.

[0003] Most searches are done via textual queries; thus, there must be a mechanism to link applicable keywords or phrases to media content. There exist programs for automatic context recognition that can be used to create search queries for media content, i.e. to perform media tagging. Media tagging may be done based on the user's context environment or activity etc. However, the tagging is often incorrect. The state of the user as well as the situation where the media is captured may be incorrectly defined, which leads to incorrect tagging. Incorrect tagging may prevent the finding of the media content later on by textual search, but it may also give misleading information about media.

SUMMARY OF THE INVENTION

[0004] Now there has been invented an improved method and technical equipment implementing the method. Various aspects of the invention include a method, an apparatus, a system and a computer program, which are characterized by what is stated in the independent claims. Various aspects of examples of the invention are set out in the claims.

[0005] According to a first aspect there is provided a method, comprising obtaining a first context recognition data and a second context recognition data, wherein said first context recognition data and said second context recognition data relate to a media content, and wherein said first context recognition data is formed prior to a time point of capturing of said media content and said second context recognition data is formed after the time point of capturing of said media content, determining a media tag on the basis of at least said first context recognition data and said second context recognition data and associating said media tag with said media content.

[0006] According to an embodiment, said first context recognition data comprise at least first type of context tags that are obtained from a context source point prior to capturing of said media content. According to an embodiment, said second context recognition data comprise at least first type of context tags that are obtained from a context source after capturing of said media content. According to an embodiment, said first and second context recognition data comprise at least first and second types of context tags that are obtained from different context sources prior to capturing of said media content. According to an embodiment, said first and second context recognition data comprise at least first and second types of context tags that are obtained from different context sources after capturing of said media content. According to an

embodiment, first type of context tags are obtained at at least one time point prior to capturing of said media content. According to an embodiment, first type of context tags are obtained at at least one time point after capturing of said media content. According to an embodiment, first type of context tags are obtained at a span prior to capturing of said media content. According to an embodiment, first type of context tags are obtained at a span after capturing of said media content. According to an embodiment, obtained context tags are formed into words. According to an embodiment, said media tag is determined by choosing the most common context tag in said first and second context recognition data. According to an embodiment, said media tag is determined by choosing the context tag from first and second context recognition data that is obtained from context source at the time point that is closest to the time point of capturing of said media content. According to an embodiment, said media tag is determined on the basis of weighting of context tags. According to an embodiment, said weighting is done by assigning a weight for a context tag on the basis of distance of a time point of obtaining said context tag from the time point of capturing of said media content. According to an embodiment, said media tag is determined on the basis of telescopic tagging.

[0007] According to a second aspect there is provided an apparatus comprising at least one processor, at least one memory including computer program code for one or more program units, the at least one memory and the computer program code configured to, with the processor, cause the apparatus to perform at least the following: obtaining first context recognition data and second context recognition data, wherein said first context recognition data and said second context recognition data relate to a media content, and wherein said first context recognition data is formed prior to a time point of capturing of said media content and said second context recognition data is formed after the time point of capturing of said media content, determining a media tag on the basis of at least said first context recognition data and said second context recognition data, and associating said media tag with said media content.

[0008] According to an embodiment, said first context recognition data comprise at least first type of context tags that are obtained from a context source point prior to capturing of said media content. According to an embodiment, said second context recognition data comprise at least first type of context tags that are obtained from a context source after capturing of said media content. According to an embodiment, said first and second context recognition data comprise at least first and second types of context tags that are obtained from different context sources prior to capturing of said media content. According to an embodiment, said first and second context recognition data comprise at least first and second types of context tags that are obtained from different context sources after capturing of said media content. According to an embodiment, first type of context tags are obtained at at least one time point prior to capturing of said media content. According to an embodiment, first type of context tags are obtained at at least one time point after capturing of said media content. According to an embodiment, first type of context tags are obtained at a span prior to capturing of said media content. According to an embodiment, first type of context tags are obtained at a span after capturing of said media content. According to an embodiment, obtained context tags are formed into words. According to an embodiment,